Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-14 (canceled)

15. (original) A resistive heater for heating a semiconductor processing chamber, the resistive heater comprising:

a doped ceramic heating element shaped to form at least one continuous electrical path;

an undoped ceramic material encasing at least a portion of the doped ceramic heating element to form a monolithic plate; and

wherein the coefficient of thermal expansion of the doped ceramic heating element is substantially the same as the coefficient of thermal expansion of the undoped ceramic material.

16. (original) The resistive heater of claim 15, wherein the doped ceramic heating element and the undoped ceramic material comprise silicon carbide.

17. (original) The resistive heater of claim 16, wherein the dopant of the doped ceramic heating element comprises nitrogen.

18. (original) The resistive heater of claim 17, wherein the dopant level of nitrogen within the doped ceramic heating element is between about 150 and 2000 ppm.

19. (original) The resistive heater of claim 15, wherein the plate comprises a susceptor configured to support a semiconductor substrate during processing.

20. (original) The resistive heater of claim 15, wherein the plate includes at least one substantially oval shaped aperture formed therein for allowing passage of a substrate support pin, the substantially oval shaped aperture having a major axis substantially parallel to a radius of the plate and sized to allow thermal expansion of the plate.

21. (original) The resistive heater of claim 15, wherein the continuous electrical path comprises a plurality of concentric loops that alternate direction.

22. (original) The resistive heater of claim 15, wherein the doped ceramic heating element is completely encased within the undoped ceramic material.

23. (original) The resistive heater of claim 15, wherein the doped ceramic heating element and the undoped ceramic material comprise at least one of aluminum oxide, boron nitride and silicon nitride.

24. (original) The resistive heater of claim 15, wherein the dopant of the doped ceramic heating element comprises at least one of boron, arsenic, antimony and phosphor.

25. (original) The resistive heater of claim 15, wherein the thickness of the resistive heater ranges from about 0.1 to about 0.3 inches.

26. (original) The resistive heater of claim 15, wherein the doped ceramic heating element has an electrical resistivity ranging from about 2 to about 5 orders of magnitude less than the electrical resistivity of the undoped ceramic material.

27. (original) The resistive heater of claim 15, wherein the doped ceramic heating element forms at least two separate electrical paths to provide at least two separate heating zones.

Claims 28-35 (canceled)

36. (new) A resistive heater for heating at least one semiconductor wafer, the resistive heater comprising:

a doped ceramic heating element forming at least one continuous electrical path shaped to provide heat across a surface of the at least one semiconductor wafer; and

an undoped ceramic material covering at least a front surface of the doped ceramic heating element to form a heating surface shaped to receive the at least one semiconductor wafer;

wherein the coefficient of thermal expansion of the doped ceramic heating element is substantially the same as the coefficient of thermal expansion of the undoped ceramic material.

37. (new) The resistive heater of claim 36, wherein the doped ceramic heating element and the undoped ceramic material comprise silicon carbide.

38. (new) The resistive heater of claim 37, wherein the dopant of the doped ceramic heating element comprises nitrogen.

39. (new) The resistive heater of claim 36, wherein the doped ceramic heating element forms a non-linear trace defining a plane.

40. (new) The resistive heater of claim 39, further comprising a second doped ceramic heating element forming a non-linear trace within the plane.

41. (new) The resistive heater of claim 39, wherein the heating surface defines a plane that is parallel to the plane defined by the ceramic heating element.

42. (new) The resistive heater of claim 37, wherein the doped ceramic heating element forms a non-linear trace defining a plane and the heating surface defines a plane that is parallel to the plane defined by the ceramic heating element.

43. (new) The resistive heater of claim 37, wherein the doped ceramic heating element traces a circular region corresponding to the shape of the semiconductor wafer.

44. (new) A resistive heater for heating a semiconductor wafer, the resistive heater comprising:

a doped ceramic heating element forming a trace having a plurality of adjacent segments; and

an undoped ceramic material between the adjacent segments and forming a continuous surface for heating the semiconductor wafer;

wherein the coefficient of thermal expansion of the doped ceramic heating element is substantially the same as the coefficient of thermal expansion of the undoped ceramic material.

45. (new) The resistive heater of claim 44, wherein the undoped ceramic material is configured to hold the adjacent segments in a position spaced apart from one another.

46. (new) The resistive heater of claim 44, wherein the continuous surface for heating the semiconductor substrate is planar and the trace of the doped ceramic heating element defines a plane parallel to the continuous surface for heating the semiconductor substrate.

47. (new) A resistive heater for heating a semiconductor wafer, the resistive heater comprising:

a susceptor comprising an undoped ceramic material shaped to receive the semiconductor substrate; and

a doped ceramic heating element at least partially embedded within the susceptor;

wherein the coefficient of thermal expansion of the doped ceramic heating element is substantially the same as the coefficient of thermal expansion of the undoped ceramic material.

48. (new) A resistive heater for heating a semiconductor wafer, the resistive heater comprising:

a first doped ceramic heating element;

a second doped ceramic heating element spaced apart from the first ceramic heating element; and

an undoped ceramic material between the first doped ceramic heating element and the second doped ceramic heating element and forming a continuous surface between the first heating element and the second heating element for heating the semiconductor wafer;

wherein the coefficient of thermal expansion of the first doped ceramic heating element and the second doped heating element is substantially the same as the coefficient of thermal expansion of the undoped ceramic material.

49. (new) The resistive heater of claim 48, wherein the first heating element and the second heating element each form a non-linear trace.

50. (new) The resistive heater of claim 49, wherein the trace of the first heating element of claim 49 which defines a plane and the trace of the second heating element is in the same plane.

51. (new) The resistive heater of claim 50, wherein the continuous surface is planar and is parallel to the plane defined by the first heating element.

52. (new) The resistive heater of claim 51, wherein the continuous surface comprises undoped silicon carbide and the first heating element comprises doped silicon carbide.